## BOOK NOTICE

## A Generic and Subgeneric Synopsis of the United States Ants, Based on the Workers (Hymenoptera: Formicidæ) by Marion R. Smith. The American Midland Naturalist, Vol. 37, pp. 521-647. May, 1947.

It is a peculiarity of the Formicidæ, more markedly than of any other of the social insects, that the sexual forms, the normally alate males and females, are much rarer insects than the workers. Not only are they rarer in numbers, but in the majority of cases they are either much more narrowly seasonal in occurrence or more retiring in habits so that they are much less often taken by collectors. Thus the males in the majority of forms appear in some abundance only during a period of a very few weeks, or even less, during a season. The winged females appear above ground only during this same short period. For the rest of the year the dealate forms are widely scattered in their individual colonies and are more or less inaccessible underground.

As a consequence, ants as a group are much better represented in most collections by worker specimens than they are by the sexual forms. This situation has posed very considerable practical obstacles to taxonomic workers in the field who do not have constant access to the largest and most modern collections. The difficulty has been much increased by the marked sexual dimorphism characteristic of nearly all ants and by the further remarkable morphological polymorphism characteristic of the female sex among many of them. So pronounced are these differences that workers and females, workers and males, and males and females of the same species, when taken separately, have frequently been described as entirely different forms, and in some cases, as in the males of many Dorylines, have so remained in the literature for many years before they were properly correlated. In consequence of this situation, ants have presented a very difficult arena for the average taxonomist, and many entomologists have been discouraged from entering the field who undoubtedly would have done so if adequate keys to the Formicidæ, based on worker characters, had been available.

The present very complete and beautifully organized paper supplies this need most admirably for the ants of the United States. It will undoubtedly find a warm welcome among myrmecologists as the answer to a very long standing and imperative demand which has never before been adequately met, and it should result in turning the efforts of a number of entomologists who have not hitherto concerned themselves with the Formicidæ into this field, where additional workers are badly needed.

There is probably no entomologist in the United States at present so well qualified to undertake this task as Dr. Smith. For thirty years he has been engaged in an intensive study of North American Formicidæ and for the last ten, in Washington, he has had continuous and intimate contact with all of the material in the Wheeler collections, in addition to the even more extensive material in the Smithsonian Institution. His knowledge of North American Formicidæ is profound.

This paper is very complete. The descriptions are extensive and the arrangement is such that any worker concerned with the group, even if he is but a tyro in the field, can readily use them. The plates are numerous and clear. The format is excellent and the historical background of the subject is very completely covered. Altogether, too much praise can hardly be given to this complete, clear, thorough, and very much needed contribution to myrmecological literature.—C. P. HASKINS.

## DECEASED

We regret to announce that Professor T. D. A. Cockerell, an honorary member of the New York Entomological Society and widely known for his entomological work, died at the age of 81 years on January 26, 1948, at San Diego, California, where he and Mrs. Cockerell were spending the winter. Several months ago he suffered a stroke, but recovered sufficiently to resume work on the bees of Honduras, when the end came. An extended account of Professor Cockerell will appear in the next issue of this JOURNAL.